

## CLAIMS

[1] A soluble human interleukin-18 receptor  $\alpha$ .

[2] A method for assaying a soluble human interleukin-18 receptor  $\alpha$   
5 with an enzyme-linked immunosorbent assay, wherein an antibody (A)  
below is used.

(A) anti human interleukin-18 receptor  $\alpha$  monoclonal antibody  
that can recognize the same epitope as a H44 mouse anti human  
interleukin-18 receptor  $\alpha$  monoclonal antibody

10 [3] The method for assaying a soluble human interleukin-18 receptor  
 $\alpha$  according to claim 2, wherein (A) is (a) below.

(a) mouse anti human interleukin-18 receptor  $\alpha$  monoclonal  
antibody that can recognize the same epitope as a H44 mouse anti  
human interleukin-18 receptor  $\alpha$  monoclonal antibody

15 [4] The method for assaying a soluble human interleukin-18 receptor  
 $\alpha$  according to claim 3, wherein (a) is either one of (a1) to (a3) below.

(a1) H44 mouse anti human interleukin-18 receptor  $\alpha$  monoclonal  
antibody

(a2) MAB840 mouse anti human interleukin-18 receptor  $\alpha$   
20 monoclonal antibody

(a3) 117-10C mouse anti human interleukin-18 receptor  $\alpha$   
monoclonal antibody

[5] The method for assaying a soluble human interleukin-18 receptor  
 $\alpha$  according to any one of claims 2 to 4, wherein another antibody is (B)  
25 below.

(B) anti human interleukin-18 receptor  $\alpha$  polyclonal antibody

[6] The method for assaying a soluble human interleukin-18 receptor  
 $\alpha$  according to claim 5, wherein (B) is (b) below.

(b) rabbit anti human interleukin-18 receptor  $\alpha$  polyclonal

antibody

[7] The method for assaying a soluble human interleukin-18 receptor  $\alpha$  according to claim 7, wherein a primary antibody in which an antibody (1) below is immobilized and a secondary antibody (2) below are used to  
5 detect a soluble human interleukin-18 receptor  $\alpha$ .

(1) anti human interleukin-18 receptor  $\alpha$  monoclonal antibody

(2) anti human interleukin-18 receptor  $\alpha$  polyclonal antibody

[8] A method for diagnose autoimmune diseases, wherein the method for assaying a soluble human interleukin-18 receptor  $\alpha$  according to any  
10 one of claims 2 to 7 is used.

[9] A kit for assaying a soluble human interleukin-18 receptor  $\alpha$ , comprising an antibody (A) below as an immobilized antibody or a labeled antibody.

(A) anti human interleukin-18 receptor  $\alpha$  monoclonal antibody  
15 that can recognize the same epitope as a H44 mouse anti human interleukin-18 receptor  $\alpha$  monoclonal antibody

[10] A kit for assaying a soluble human interleukin-18 receptor  $\alpha$ , comprising two types of antibodies (1) and (2), one of the antibodies being immobilized and the other being labeled.

20 (1) mouse anti human interleukin-18 receptor  $\alpha$  monoclonal antibody

(2) rabbit anti human interleukin-18 receptor  $\alpha$  polyclonal antibody

[11] A medicinal composition comprising at least one selected from the  
25 group consisting of (X), (Y) below and genes encoding these as an effective component.

(X) soluble human interleukin-18 receptor  $\alpha$

(Y) protein that is constituted by an amino acid sequence in which one or several amino acids are deleted, substituted or added and

has the same activity as the soluble human interleukin-18 receptor  $\alpha$

[12] A drug for preventing or treating diseases caused by interleukin-18, comprising at least one selected from the group consisting of (X), (Y) below and genes encoding these as an effective component.

(X) soluble human interleukin-18 receptor  $\alpha$

(Y) protein that is constituted by an amino acid sequence in which one or several amino acids are deleted, substituted or added and has the same activity as the soluble human interleukin-18 receptor  $\alpha$

10 [13] A drug for preventing or treating pulmonary disorders, comprising at least one selected from the group consisting of (X), (Y) below and genes encoding these as an effective component.

(X) soluble human interleukin-18 receptor  $\alpha$

(Y) protein that is constituted by an amino acid sequence in which one or several amino acids are deleted, substituted or added and has the same activity as the soluble human interleukin-18 receptor  $\alpha$

[14] A medicinal composition comprising (x) or (y) below as an effective component.

(x) human interleukin-18 receptor  $\alpha$  gene

20 (y) gene that is constituted by a base sequence in which one or several bases are deleted, substituted or added and which codes the protein that has the same activity as the soluble human interleukin-18 receptor  $\alpha$